

PROVISIONAL PROGRAMME

Aim

A comparison of biotic and abiotic factors in a woodland and meadow pond Ecosystem.

Introduction

- A comparison of two Freshwater Pond Ecosystems
- Energy flow in ecosystems, and transfers between trophic levels
- Food chains and webs
- Risk assessment of fieldwork

Field Site 1: Meadow Pond

- Random Sampling using Sweep sampling of 3 Micro-habitats
- Field identification of invertebrates using dichotomous keys
- Measuring abiotic factors

Field Site 2: Woodland Pond

- Repeat of fieldwork techniques

Follow up

- Construct Pyramids of numbers and biomass
- Use exam questions to discuss pyramids of biomass
- Summary, conclusion and limitations as group presentations

SPECIFICATION LINKS

- **5.3.1 a)** define the term ecosystem
- **5.3.1 c)** define the terms biotic factor and abiotic factor
- **5.3.1 d)** define the terms producer, consumer, decomposer, and trophic level.
- **5.3.1 f)** outline how energy transfers between trophic levels can be measured.
- **5.3.1 g)** discuss the efficiency of energy transfers between trophic levels.

RECOMMENDED DAY LENGTH

9.00-16.00

SAFETY All activities and sites are Risk Assessed. Recommended 1 adult per group.

CLOTHING Appropriate outdoor clothing. Indoor & outdoor footwear. Students may bring their own rubber gloves for fieldwork.

VISITING TEACHER ROLE Teachers to support FSC staff by circulating the students, keeping them on task. Teachers are responsible for behaviour.

RESOURCES All resources are provided

ICT We have the option of using a digital camera to record techniques.



ASSESSMENT

Progress assessed by open ended questioning, peer discussions, presentations and use of knowledge and skills in different situations.

PRIOR LEARNING

Simple definitions and terms

FUTURE LEARNING

Consider effects of human Influences on an Ecosystem